

APPARATUS AND METHOD FOR CONSERVING MEMORY
IN A FINE GRANULARITY SCALABILITY CODING SYSTEM

ABSTRACT OF THE DISCLOSURE

5 Decoding time stamps (DTSS) and presentation time
stamps (PTSS) are used in fine granularity scalability
(FGS) coding during MPEG-4 video coding. An input video is
encoded in an FGS encoder into a base layer bitstream and
an enhancement bitstream. The bitstreams are provided over
10 a variable bandwidth channel to an FGS decoder. The DTSS
and the PTSS are selected during encoding as to conserve
memory during FGS decoding. The video object planes (VOP)
in the bitstreams include base VOPs and FGS VOPs, and may
also include fine granularity temporal scalability (FGST)
15 VOPs. The FGS VOPs and the FGST VOPs may be organized in
the same layer or in different layers. The base VOPs are
combined with the FGS VOPs and the FGST VOPs to generate
enhanced VOPs.